

GATE FOR TRAMPOLINE SAFETY FENCE

FIELD OF THE INVENTION

5 The present invention relates to a gate for trampoline safety fence, and more particularly to a gate for trampoline safety fence adapted to ensure safe closure thereof when the safety fence is in use.

10 BACKGROUND OF THE INVENTION

A trampoline typically includes a jumping bed connected to and tightly stretched over a ground frame via a plurality of elastic elements radially extended between
15 the jumping bed and the frame. A user may stand on the jumping bed to continuously do various jumping movements. Since it is uncertain in what direction the user would fall after bouncing off from the jumping bed, accidents often occur. According to statistical
20 data, such accidents often happen particularly when the user is a child. Therefore, it is necessary for the conventional trampoline to equip with safety means.

US Patent No. 6,261,207 granted to Publicover et al.
25 discloses a trampoline safety fence for enclosing a

space immediately above the jumping bed, so as to protect a user from any unexpected injury caused by colliding against the frame or bouncing and falling to the ground outside the jumping bed.

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Fig. 1 illustrates a conventional trampoline with a safety fence. As shown, the trampoline mainly includes a ground-contact frame 10, a round elastic jumping bed 11 fixed to the frame 10, and a protective net 13 supported on a plurality of posts 12 surrounding an outer periphery of the trampoline to enclose a space above the jumping bed 11. Since the space above the jumping bed 11 is completely enclosed by the protective net 13, it is necessary to provide a gate at a predetermined position on the protective net 13 for users to move into and out of enclosed space above the jumping bed 11 via the gate. A conventional way for forming the gate on the protective net 13 is to overlap two sewed ends 14, 15 of the protective net 13 by a predetermined width, so that an overlapped portion 16 is provided to serve as the gate.

As can be seen from Fig. 2, which is a fragmentary and enlarged view of the overlapped portion 16 of Fig. 1, when one of the two sewed ends 14 is pulled outward

in a direction as indicated by the arrow A, a passage is formed at the overlapped portion 16 between the separated sewed ends 14 and 15. Alternatively, when the other sewed end 15 is pulled inward from an inner side of the overlapped portion 16, a passage may also be formed. Via the passage at the overlapped portion 16, the user may access to or leave the jumping bed 11.

10 A disadvantage of the above-described trampoline safety fence is the protective net 13 forming the safety fence is frequently subjected to pull and stretch and tends to become slack and deformed after being used for a period of time, and the initial width of the overlapped
15 portion 16 is reduced when the protective net 13 becomes slack and deformed, making the gate almost an area directly communicating an inner and an outer side of the safety fence. That is, the slack and deformed overlapped portion 16 has lost its function as a safety
20 gate. It is very possible a user jumping on the jumping bed 11 would be unexpectedly bounced off the trampoline via the slack gate and dangerously injured.

SUMMARY OF THE INVENTION

A primary object of the present invention is to provide an improved gate for trampoline safety fence to ensure safe closure of the gate when the safety fence is in use.

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To achieve the above and other objects of the present invention, the trampoline safety fence includes a protective net supported on a plurality of posts to enclose a space above a jumping bed of the trampoline, and the gate is formed at a joint of two sewed ends of the protective net, and user-controllable and selectively openable fastening elements are provided on the protective net at the gate corresponding to the two sewed ends to ensure safe closure of the gate of the trampoline safety fence.

In a preferred embodiment of the present invention, areas of the protective net at the two sewed ends are overlapped by a predetermined width to form the gate, and the selectively openable fastening elements are provided on the protective net within the overlapped areas corresponding to the two sewed ends.

In a feasible embodiment of the present invention, at least one fastening element is provided at the gate

formed from the overlapped portion of the protective net.

In the preferred embodiments of the present invention,
5 the selectively openable fastening elements are magic tapes formed of hook tapes and loop tapes, or zippers.

BRIEF DESCRIPTION OF THE DRAWINGS

10 The structure and the technical means adopted by the present invention to achieve the above and other objects can be best understood by referring to the following detailed description of the preferred embodiments and the accompanying drawings, wherein

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Fig. 1 is a perspective view of a conventional trampoline with safety fence;

Fig. 2 is a fragmentary and enlarged view of Fig. 1;

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Fig. 3 is a perspective view showing a trampoline safety fence with a gate according to a preferred embodiment of the present invention;

25 Fig. 4 shows two lateral sides of the gate of Fig. 3

before being attached to corresponding fastening elements; and

Fig. 5 illustrates another feasible embodiment of the gate for trampoline safety fence of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

10 Please refer to Figs. 3 and 4, in which a trampoline safety fence having a gate according to a preferred embodiment of the present invention is shown. As shown, the trampoline includes a round jumping bed 31 connected to and tightly stretched over a ground frame 30 via
15 a plurality of elastic elements radially extended between the jumping bed 31 and the frame 30. A protective net 33 is supported on a plurality of posts 32 surrounding an outer periphery of the trampoline to enclose a space above the jumping bed 31. Two sewed
20 ends 34, 35 of the protective net 33 are overlapped by a predetermined width to form an overlapped portion 36 that serves as a gate.

The gate for trampoline safety fence of the present invention is characterized in that fastening elements
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are provided on the gate so that a user may selectively close or separate the overlapped portion 36. In the illustrated preferred embodiment of Figs. 3 and 4, fastening elements 37 and 38, such as hook tapes and loop tapes forming magic tapes, that are adapted to detachably connect with the sewed ends 34 and 35, are provided on the protective net 33 at positions corresponding to the sewed ends 34 and 35. A user may apply a force to separate the sewed end 34 or 35 from the magic tape 37 or 38, as shown in Fig. 4, so as to open the gate, that is, the overlapped portion 36. Or, the user may attach the sewed end 34 or 35 to the magic tape 37 or 38, as shown in Fig. 3, so as to close the gate.

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In the above-mentioned preferred embodiment, the fastening elements 37 and 38 are provided at the overlapped portion 36 to correspond to the two sewed ends 34 and 35. However, it is understood that it is also possible to provide only one fastening element 37 or 38 at the overlapped portion 36 to correspond to the sewed end 34 or 35. That is, there is at least one fastening element provided at the overlapped portion 36.

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Fig. 5 shows another feasible embodiment of the gate for trampoline safety fence of the present invention. In this embodiment, the trampoline safety fence includes a protective net 330 having two sewed ends 340 and 350. A fastening element, such as a zipper 50, is sewed to a joint of the two sewed ends 340 and 350 to provide a gate on the protective net 330. A user may pull open or close the zipper 50 to control the open or close of the gate.

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With the user-controllable fastening elements provided at the gate formed from two overlapped or adjacent sewed ends of the protective net, the user would never be unexpectedly bounced from the jumping bed off the protective net via the gate to cause any accident or injury. The trampoline that attracts most children may therefore be used in a much safer manner.

The present invention has been described with some preferred embodiments thereof and it is understood that many changes and modifications in the described embodiments can be carried out without departing from the scope and the spirit of the invention that is intended to be limited only by the appended claims.

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